

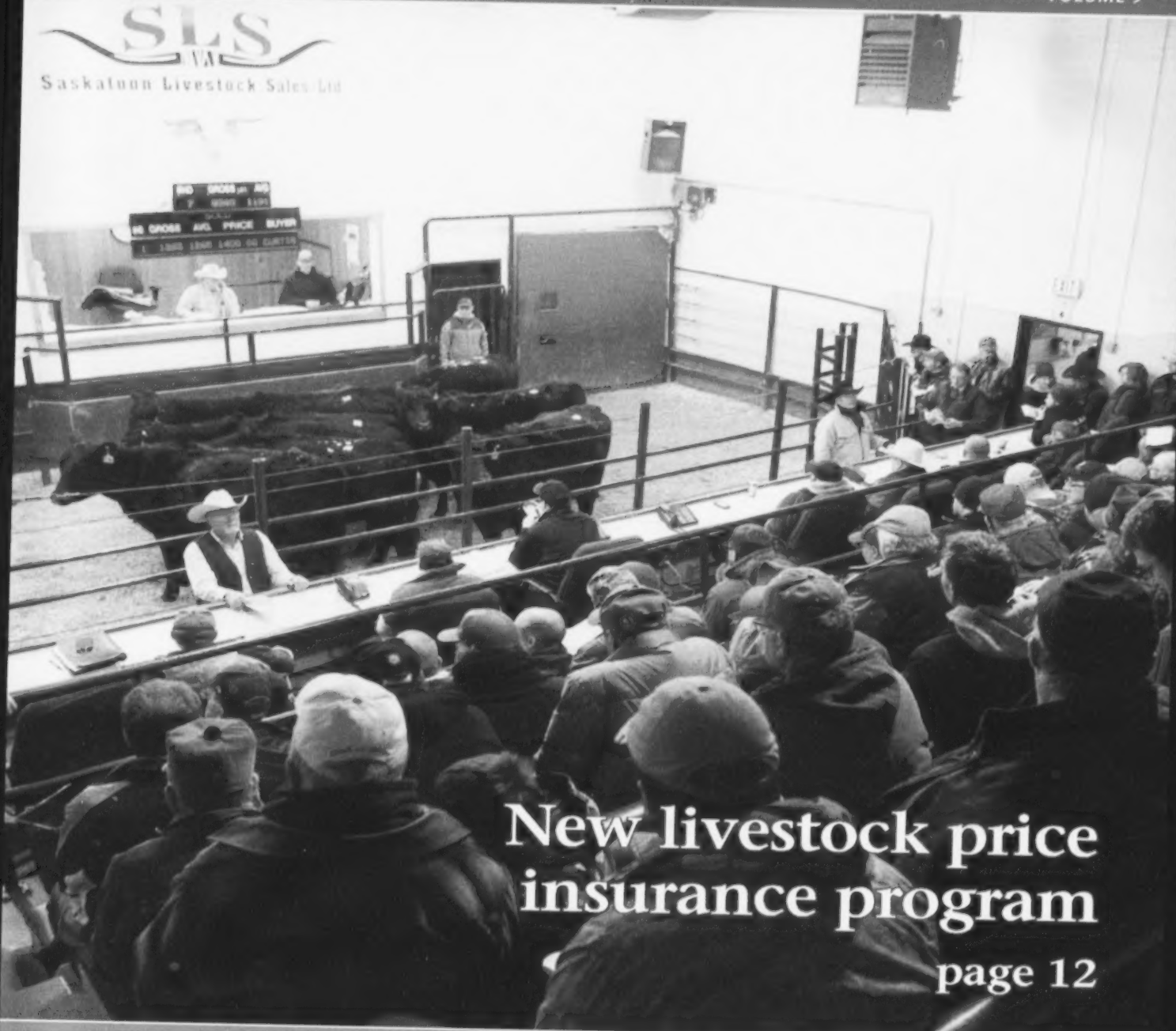
ISSUE 10

AGRIVIEW

MARCH 2014

VOLUME 9

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Saskatoon Livestock Sales Ltd



New livestock price insurance program

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 Government
of
Saskatchewan

Minister's Message



Risk is a main cause of uncertainty in any organization or business. In recent years, there has been a renewed focus to manage risk and this is especially true in agriculture.

Providing effective business risk management programming that meets the needs of farmers and ranchers is a key element of the Saskatchewan Plan for Growth.

To better serve producers, the Government of Saskatchewan has worked to continually improve the Crop Insurance program.

Since going through an extensive review, significant improvements have been made to the Crop Insurance program. Our Government's commitment to providing the greatest quality service and programs is evident by introducing the highest average coverage levels in the history of the program over the past several years.

The 2014 Crop Insurance Program introduced two new insurance programs: Grain Corn Production Insurance Pilot Program and Bee Mortality Insurance. Both programs were created with industry consultation and feedback.

Recognizing the continued advancements in technology and agronomics, the 2014 Crop Insurance program will see yield trending expanded to include durum and barley. Additional program enhancements include increasing the base grade for flax, adding commercial field peas to the contract price option and expanding the vegetable insurance program to include five more vegetables.

With the use of technology by farmers and ranchers increasing, the methods producers use to conduct their business is rapidly evolving. As a result, the Saskatchewan Crop Insurance Corporation (SCIC) has created a new online system, CropConnect, providing Crop Insurance customers the flexibility of completing all of their business conveniently online. The enhanced system will allow producers to select their insurance, calculate premiums, complete seeded acreage reports and production declarations, and file their yield loss claims online.

Earlier this year we announced SCIC will offer livestock price insurance in collaboration with Alberta, British Columbia, Manitoba, and the federal government. Livestock price insurance will protect producers against an unexpected drop in prices over a defined period of time. More information about how to sign up and purchase livestock insurance will be available in the coming weeks.

With this year's program improvements I continue to encourage producers to consider all the available program options from Crop Insurance in 2014.

For more information, contact your local Crop Insurance office.

Sincerely,

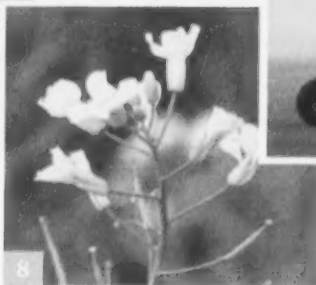
Lyle Stewart



STORY SNAPSHOTS



Weevil Pest Control



Canola Rotations



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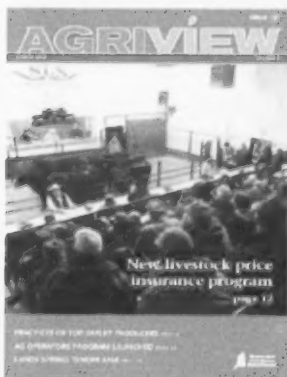
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Cover: The Western Livestock Price Insurance Program will help protect producers against an unexpected drop in prices. Turn to page 12 for more information.



Practices of top barley producers



by Mitchell Japp, M.Sc., PAg
Provincial Specialist, Cereal Crops
Crops and Irrigation Branch

Saskatchewan farmers seed more than two million acres to barley every year. Overwhelmingly, farmers choose to plant varieties that are eligible for malt, yet only a small portion of what is planted is selected for malt. Some farmers may find that getting selected for malt is a goal that is hard to reach.

Unlike other grain crops, malt barley must be delivered to the customer in a living state, which requires meticulous care and management of the crop. There are several other factors that are important in malt production, such as plump and uniform kernels, 95-per-cent germination, disease-free grain and more. The brewing industry recognized that farmers growing malt barley may benefit from the knowledge of their peers. For a few years, industry ran an Elite Barley recognition program. The program identified farmers who are able to consistently achieve malt selection and shared their



The top barley producers seed early, practice good crop rotation and increase their seeding rates.

practices with others. While the program no longer runs, the lessons are still valuable and worth reviewing.

Top barley producers seed barley early, practice good crop rotation and increase seeding rates. These practices have been confirmed by research in Western Canada.

The research showed higher quality in barley that was seeded early. Seeding early avoids intense summer heat at sensitive times and allows for more optimum harvest conditions. Optimum yield and improved kernel uniformity was achieved at a seeding rate of 300 seeds per square metre. Disease incidence decreased and yield increased with barley grown on canola or pea stubble over barley grown on barley stubble.

Additionally, variety selection is an important aspect of malt production and potential acceptance. When selecting other crops, yield potential, disease resistance and other agronomic factors may be primary considerations. For malt barley, the demand of that variety for malt must also be considered.

In addition, at harvest, top barley producers reported that adjusting equipment when conditions change—such as in the evening—and using slower auger speeds can decrease the chances of peeled or cracked kernels.

These are only a few of the management decisions producers make to successfully grow malt barley. Now is a good time to read more about malt barley production, talk to industry representatives such as your malt buyer or agronomist, and make plans for successful malt barley production in 2014.

FOR MORE INFORMATION

- Go to www.saskatchewan.ca/crops and look for the *Varieties of Grain Crops* and the malting barley factsheet; or
- Visit the Elite Barley website at www.elitebarley.com.

THE DIRT ON APHANOMYCES ROOT ROT



by Faye Dokken-Bouchard, M.Sc., PAg
Provincial Specialist, Plant Disease
Crops and Irrigation Branch

Pulse growers have reported disappointing pea yields in recent years which have been generally attributed to a combination of adverse conditions. Root rots are usually implicated at some point, taking hold when plant defenses are down due to stress. Root rots lead to poor emergence, seedling blight, stunted growth, discoloration and stand collapse. Ultimately, if the crop does not grow out of the symptoms when other conditions improve, yield loss may occur.

The root rot complex in Western Canada includes multiple species of *Fusarium* and *Pythium*, and *Rhizoctonia solani*. In Alberta and Manitoba, *Aphanomyces euteiches* has been included in this complex for quite some time, but this pathogen was not reported in Saskatchewan until 2012. Initially suspected by the Ministry of Agriculture Crop Protection Laboratory (CPL) in Regina, its presence was later confirmed through disease surveys by the Crop Development Centre (CDC) in Saskatoon. In 2013, the CDC initiated research to determine the role of *Aphanomyces euteiches* in the root rot complex in Saskatchewan.

Aphanomyces root rot affects pea, lentil, bean, vetch, clover and alfalfa. Chickpea, canola, flax, soybean, cereal crops and some cultivars of faba bean are susceptible to other root rots, but have tolerance to *Aphanomyces euteiches*. There are seed treatments registered for control of *Fusarium*, *Rhizoctonia* and *Pythium*, but not *Aphanomyces euteiches*. Host crops are most severely affected under water-logged conditions; however, it is important to note that crops can be diseased even under ideal moisture conditions. Crops can also suffer due to wet feet regardless of pathogen pressure.

A distinguishing feature of *aphanomyces* root rot is the development of caramel-coloured roots. Diagnostic laboratories can also examine freshly infected roots for spores or confirm its presence using DNA testing. It is difficult to identify the disease once plants are heavily damaged or dead, due to the presence of other organisms that feed on decaying tissue.



A key symptom of *Aphanomyces* root rot is caramel coloured roots. A healthy plant is on the left; a diseased plant is on the right. (Source: Crop Development Centre)

FOR MORE INFORMATION

- Contact Faye Dokken-Bouchard, Provincial Specialist, Plant Disease, at 306-787-4671 or Faye.dokken-bouchard@gov.sk.ca.





Plant certified flax seed in 2014



by Venkata Vakulabharanam, M.Sc., PAg
Manager, Production Technology
Crops and Irrigation Branch

Access to the European Union (EU) market for Canadian flax is still based on testing for Trifid contamination. Over the last three years, the amount of Trifid contamination in our flax seed stocks and commercial production has been decreasing. However, significant and consistent decrease was seen only in pedigreed flax seed, which showed 'zero' positive samples for Trifid in testing conducted for three years in a row. About three per cent of farm-saved seed is consistently showing Trifid contamination. As the current tolerance limit to access the EU market is still effectively zero, planting 'Trifid-free' seed is still the key.

The flax breeders at the Crop Development Centre (CDC) reconstituted their two popular flax varieties—CDC Bethune and CDC Sorrel—and two new varieties—CDC Sanctuary and CDC Glas. Reconstitution of a variety is a very laborious process in which the breeder tests each and every plant in the greenhouse for Trifid contamination and only seed from plants that tested negative is pooled to make breeder's seed for that variety. These reconstituted breeder seed lots were supplied to SeCan. This pedigreed seed was grown under a very stringent agreement in 2012 and 2013. Seed growers with reconstituted seed are provided with a Reconstituted Flax Seed Certificate for authenticity. Please make sure to check that certificate while buying. For seed availability information, please visit www.secan.ca/1111.

For the 2014 planting season, flax growers are recommended to use only certified seed for planting. Furthermore, the new cultivars CDC Sanctuary (105 per cent in brown soil zone) and CDC Glas (103 per cent in Western Canada) gave better yields than CDC Bethune.

The flax industry is providing a great opportunity to all flax growers to start with clean seed. This was a well-thought-out response to restore our flax markets. Be a part of the industry awareness campaign: Reboot Canada's Flax Industry.

FOR MORE INFORMATION

- Contact the Agriculture Knowledge Centre at 1-866-457-2377.



OPTIMAL ORGANIC SEEDING A BALANCE OF ECONOMICS, YIELD AND WEED CONTROL



by Chantal Jacobs, M.Sc., PAg
Alternative Cropping Systems Specialist
Crops and Irrigation Branch

Optimizing organic seeding rates requires a balance between economics, crop yield and weed control benefits. The standard recommendation for most organic crops is to increase seeding rates between 1.25 to two times the conventional seeding rate. The right seeding rate is not always easy to find and will be unique to each system.

Using increased seeding rates generally has a positive effect on weed control in all cropping systems, and is especially important for organic growers who have limited weed control options. Seeding at higher densities increases crop competition with weeds for sunlight, nutrients and water resources and is also important for maintaining stand densities if post-emergent weed control operations are planned.

Recent research has developed approximate guidelines for organic seeding rates. Recommended rates for wheat are between one and 1.25 times the conventional seeding rates (240 seeds per square metre) under lower weed competition and 1.25 to two times the conventional at higher weed pressure. Similarly, doubling the conventional barley seeding rate (240 seeds per square metre) resulted in less than 12 per cent weed biomass and was economical depending on the selling price of the crop.

Organic pulse crop seeding rates largely depend on the crop end use, variety competitiveness and seed costs. Organic field pea and lentil

grown as a harvestable seed crop have recommended seeding rates between 1.5 to two times the conventional seeding rates (88 and 130 seeds per square metre, respectively).

Competitive forage pea (leafed) varieties and small-seeded black lentil varieties are also used as green fallows for nitrogen fertility and weed control purposes in organics.

Recommended forage pea seeding rates for green fallow are equivalent to the conventional rate (88 seeds per square metre) or slightly less, depending on weed competition. For small-seeded black lentil, the recommended seeding rate for green fallow is two times the conventional seeding rate (130 plants per square metre). Green fallow seeding

rate guidelines were developed by including weed competitiveness, seed costs and subsequent soil nitrogen fertility factors.

Similar to lentil, organic flax is less weed-competitive, and increasing the seeding rate to two times the conventional seeding rate (500 seeds per square metre) may be economical, depending on the flax market price.

As a general guideline, consider increasing seeding rates to the higher end of the range with non-competitive crops and higher weed pressure, and, alternately, to the lower end of the range with competitive crop varieties and lower weed pressure. Variety selection, seed cost, and crop end use are key factors to consider in optimizing seeding rates in organic systems.

FOR MORE INFORMATION

- Contact Chantal Jacobs, Alternative Systems Cropping Specialist, at 306-798-0945 or chantal.jacobs@ag.gov.sk.ca.



Seed competitive forage pea in an organic system.





Spotlight on weevil pests in Saskatchewan



by Danielle Stephens, M.Sc, AAQ
Agrologist Intern,
Crops and Irrigation Branch
and



Erin Campbell, M.Sc, PAQ
Regional Crops Specialist, Watrous
Regional Services Branch

Weevils are a large family of insects, however in Saskatchewan there are four main crop and forage pest species of which producers need to be aware: the cabbage seedpod weevil, pea leaf weevil, sweet clover weevil and the alfalfa weevil. The table below highlights some of damage caused by these weevils, as well as scouting tips, economic thresholds and control options.

	Cabbage Seedpod Weevil <i>Ceutorhynchus obstrictus</i>	Pea Leaf Weevil <i>Sitona lineatus</i>	Alfalfa Weevil <i>Hypena postica</i>	Sweet Clover Weevil <i>Sitona cylindricollis</i>
Susceptible Crops	Canola, carinata, camelina, all mustard (except yellow mustard)	Pea, faba bean	Alfalfa	Sweet clover, alsike clover, vetch, alfalfa
Crop Damage	Larvae develop from eggs laid in pods and eat seeds. Exit holes on pods. Adults eat developing flower buds.	Larval stage causes the most damage by feeding on root nodules below ground. Adults chew on developing leaves, creating a notched look around leaf edges. Feeding occurs at night.	Larvae feeding on newly developed leaves and buds cause most significant damage. Adults feed on leaves.	Larvae feed on below ground root nodules. Adults feed on emerging seedlings and can defoliate plants. Feeding occurs at night.
Scouting	Monitor for adults at first bloom.	Eggs are laid and larvae emerge in June. Adults emerge in late July through August.	May and June. Most damage is done to alfalfa stands by larvae feeding.	Monitor seedlings in spring. In first-year stands scout field margins for invading weevil mid-summer, August.
Economic Thresholds	20-30 adults per 10 sweeps in canola when price is greater than \$8/bu.	If adult weevil damage to leaves is observed in the spring, it is recommended to use a seed treatment if growing peas the following season.	Hay alfalfa: ≤30 cm crop - 1 larvae/stem ≤40 cm crop - 2 larvae/stem Control measure required if greater than 3 larvae/stem Seed alfalfa: 20 - 30 larvae/sweep (3rd or 4th instars) or 35 - 50 per cent of foliage tips showing damage	First-year crop stands: 1 weevil per 3 seedlings (cotyledons stage) Second-year crop: 9 - 12 weevils per plant
Control Options	Control with insecticide is possible during 10-20 per cent flowering before adults have laid eggs.	Seed treatment provides more consistent yield response than foliar sprays.	Hay alfalfa can be cut early to control larvae. Chemical control may be required if feeding persists after the first cut.	Locate new stands as far as possible from established stands. Cultivate second-year stands soon after harvest to control larvae.

Provincial survey maps are created annually that predict cabbage seedpod weevil and pea leaf weevil activity. The sweet clover weevil and alfalfa weevil species are both found throughout Saskatchewan. The cabbage seedpod weevil survey map can be found on the Ministry of Agriculture website at www.agriculture.gov.sk.ca/maps section.

FOR MORE INFORMATION

Visit the Saskatchewan Agriculture website at saskatchewan.ca/Crops and look under Crop Protection / Insects.

SPRAYER SANITATION IMPORTANT AS REGULAR MAINTENANCE EXERCISE



by Clark Brenzil, PAQ
Provincial Specialist, Weed Control
Crops and Irrigation Branch

Each year, samples arrive at the Saskatchewan Agriculture Crop Protection Laboratory exhibiting symptoms of herbicide injury that is not consistent with the herbicide being applied, yet patterns in the field indicate that the injury occurred as a result of the in-crop spray pass.

The most common scenario is Group 2 herbicide injury occurring in Liberty-tolerant canola following the Liberty application. Liberty injury resembles contact-cell desiccation; whereas Group 2 herbicides cause strong compression of the main growing point, and miniaturization of new growth. In these cases, the problem is not with the Liberty application, but with sprayer contamination from insufficient/irregular cleaning. The Liberty formulation simply cleaned the existing contaminant from the sprayer.

We hear from producers with problems that several thousand acres worth of herbicides are being applied without the sprayer being cleaned. Not only does this allow the build-up of oily layers inside the sprayer, but spray solution sitting in idle sprayers for extended periods will allow deposits to settle in the sprayer.

Most glyphosate formulations contain built-in "ethoxylated tallow-amine" adjuvants, where "tallow" equals fat or oil. Without regular cleaning, there is the potential for oily layers to build up on the inside of the sprayer. While ammonia is recommended for cleaning Group 2 herbicides from sprayers, it is not a strong enough grease-cutter to cut through the accumulation of oils over the contaminant herbicide.

This problem can easily be prevented with the following tips:

- Empty and clean the sprayer each time the sprayer is to be stopped for long enough that the engine needs to be shut off.
- Add detergent to cleanout procedures to cut oily layers.

For more information on sprayer cleaning, see page 15 of the 2014 Guide to Crop Protection.

FOR MORE INFORMATION

- Refer to the Guide to Crop Protection on the Saskatchewan Agriculture website at <http://www.agriculture.gov.sk.ca/Guide-to-Crop-Protection>; or
- Contact Clark Brenzil, Provincial Specialist, Weed Control, at 306-787-4673 or clark.brenzil@gov.sk.ca.





Fertilizing for yield and protein in spring wheat



by Patrick Mooleki, PhD, PAg
Soil/Nutrient Management Specialist
Agriculture Knowledge Centre

Many factors come into play in order to maximize yield and protein. These include selecting the proper seeding operation; choosing the best variety; meeting all nutrient requirements; providing weed, disease and insect protection as required; and having the right temperature and moisture conditions.

Nitrogen has the most direct impact on both yield and grain protein content (GPC). Typically, as nitrogen rate increases, initially, yield increases but GPC decreases (Fig. 1). This is due to the fact that nitrogen enhances vegetative growth and increases grain yield components such as grain size and number of kernels per spike. In the process, the protein concentration in the kernels is diluted. Once yield components are optimized, further supply of N contributes to GPC. Grain yield and protein response to increasing the rate of N depends on moisture (Fig. 1) and available N (Fig. 2) in the soil.

Fertilizing for high GPC under situations where grain yield is low or not increasing significantly may not give you the best return. On the other hand, failing to fertilize your crop sufficiently may result in both low grain yield and low GPC, attracting low grain prices.

Typically, 80 per cent of nitrogen is taken up by the plant by flowering time and two-thirds of this nitrogen is translocated to the grain by maturity. This allows producers to manage their nitrogen fertilizer to meet both yield and GPC. This can be done by a split application in which the bulk of the nitrogen is applied at seeding and the balance applied near heading time. The success of split application depends on whether application at seeding corrected the deficiency to meet optimal grain yield. Producers could also use slow-release nitrogen fertilizers, such as polymer-coated urea (e.g. ESN). If a slow-release fertilizer is used, ensure that it is blended with a readily available nitrogen source to meet the early crop nitrogen requirements.

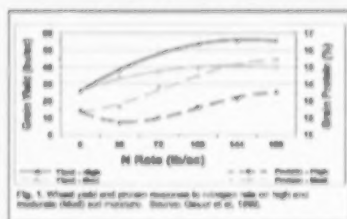


Fig. 1. Wheat yield and protein response to nitrogen rate on high and moderate (dotted) soil moisture. Source: Giesler et al. 1999.

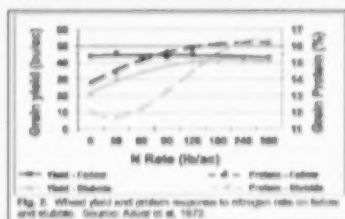


Fig. 2. Wheat yield and protein response to nitrogen rate on better and moderate soil moisture. Source: Adam et al. 1972.

FOR MORE INFORMATION

- Contact the Ministry of Agriculture Regional office in Moose Jaw at 1-866-457-2377 or visit our website at www.saskinfo.org/si/03.htm.

MAXIMIZE FORAGE YIELD BY SELECTING A SUITABLE VARIETY



by Bill Billigetu, PhD, PAg
Regional Forage Specialist, Moose Jaw
Regional Services Branch

Selecting the best-performing plant variety can be one of the most important farm management decisions. This is especially true for perennial forage growers, who will have to live with the results of their decision for many years after seeding.

Yield information can serve as a guide for selecting the best forage variety for various soil zones and climates. Yield data are available for most forage crops from the Western Forage Trial (WFT), which is a systematic test used to evaluate forage varieties in Western Canada. Perennial forage yields differ among varieties under the results same growing conditions. This difference can be demonstrated by test results of bromegrass varieties.

Bromegrass is widely seeded in Western Canada. In recent years, a number of new bromegrass varieties have been released, including

Armada meadow brome, Knowles hybrid brome and Rocket smooth brome. Smooth brome is mainly used for hay production because of its upright growth and high hay yield. Meadow brome is used for grazing as it regrows rapidly.

The dry land forage yields varied among varieties of meadow and smooth bromegrasses in different soil zones in Saskatchewan according to the multiple-year test (see table). For example, at Swift Current (Brown soil zone), the best smooth bromegrass variety is Signal, and the best meadow bromegrass variety is Admiral. Forage yield differed among varieties under irrigation as well. According to the test, the yield difference between the highest- and lowest-yielding varieties ranged from six to 11 per cent for smooth brome, and from six to 45 per cent for meadow brome at the same location.

FOR MORE INFORMATION

- Contact a Saskatchewan Agriculture Regional Forage Specialist; or
- Call the Agriculture Knowledge Centre at 1-866-457-2377.

Table 1. Relative yield of bromegrass varieties in Western Forage Trial (% of check)

	Brown soil Swift Current	Dark Brown soil Saskatoon	Black soil Melfort	Irrigation Oxbow
Smooth Bromegrass (2001-2004)*				
Carlton (check)	100	100	100	100
AC Rocket	96	108	—	100
Signal	102	97	93	97
Radisson	99	—	102	106
Yield of Carlton (kg/ha)	3,496	6,004	4,968	11,972
Meadow bromegrass (2005-2007)*				
Fleet (check)	100	100	100	100
Montana	95	102	101	112
Admiral	140	105	96	103
Armada	114	106	103	108
Yield of Fleet (kg/ha)	1,877	8,995	6,872	11,281

*Note: Forage yield data were averaged across three years for each variety, and expressed as a percent of 'check' variety yield.





Four years still the best for canola crop rotations

by Faye Dokken-Bouchard, M.Sc, PAg
Provincial Specialist, Plant Disease
Crops and Irrigation Branch

In January, the Canola Council of Canada (CCC) announced growth targets for 2025, which included a canola yield target of 52 bushels per acre, and total production of 26 million tonnes. The CCC's strategy to achieve target yields through genetics and agronomics, rather than a significant increase in acres, has raised questions about whether current crop production recommendations will change.

When making cropping and rotation decisions, the primary consideration is economics. However, in order to achieve the highest potential net returns, other variables must be managed, from water and nutrient use to weed and pest control. The Ministry website contains several fact sheets that provide science-based recommendations on crop rotations. This information indicates that canola, including disease-resistant varieties, should not be grown on the same land more than once every four years.

When it comes to disease prevention, the longer the break between canola crops, the better. Four years has become the rule of thumb in Western Canada, thanks to diseases like blackleg and clubroot. Blackleg spore production is greatest on two-year-old stubble, but is substantially reduced after four years. Every clubroot gall that forms releases millions of resting spores back into the soil. It has been estimated that after four years, approximately half of these resting spores will no longer be viable, thereby reducing disease potential.

Sclerotinia stem rot is a very common disease of canola in Saskatchewan. Crop rotation is not always effective in controlling

sclerotinia because of the pathogen's wide host range, its ability to survive in the soil as hardy resting structures (sclerotia), and the airborne nature of the spores that cause infection. Canola is one of the most susceptible crops and can return a high number of sclerotia to the soil.

Reducing our reliance on any one weed or pest control technique allows those tools to remain effective in the future. Crop rotation is therefore also beneficial for the stewardship of herbicides, pesticides and disease-resistant canola varieties.

Saskatchewan producers surpassed Saskatchewan's 2020 Growth Plan targets in 2015, with 8.9 million tonnes of canola and 48.4 million tonnes of total crop production. Maintaining a balanced approach to crop management will help us sustain our successful production in the future.

FOR MORE INFORMATION

- Contact Faye Dokken-Bouchard, Provincial Specialist, Plant Disease, at 306-787-4671 or faye.dokken-bouchard@gov.sk.ca.



Saskatchewan Agriculture still recommends canola not be grown on the same land more than once every four years.

GET THE BEST OUT OF AN IRRIGATED FORAGE STAND



by Gary Kruger, PAg
Irrigation Agrologist
Crops and Irrigation Branch, Outlook
and



Trevor Lennox, MAg, PAg
Forage Specialist
Regional Services Branch, Swift Current

With the cattle industry recovering from years of high grain prices and low beef prices, many irrigators are planting forages to take advantage of increased forage demand and the more-frequent rainfall of the past several years. With frequent spring rainfall, success rates for establishment of forages have been high during the past two years. Although past success is not a forecast for this coming year, a review of components for successful forage planting is worthwhile.

The stale seedbed technique is an excellent planting strategy for growers with access to disk-type drills used for direct-seeding. It is called "stale seedbed" because the forage is sown directly into firm, undisturbed ground. Green growth is controlled with glyphosate at a rate adjusted for the weed spectrum. A common strategy to control quack grass is to

apply one litre of glyphosate per acre at least three times over the two years prior to seeding grass. This practice could also apply when establishing alfalfa.

Once the perennial weeds are under control, the stale seedbed technique can be implemented. The forage is sown with a low-disturbance drill one to two days after the last glyphosate application. A disk drill is the easiest seeding tool, but knife openers can also be effective. The low disturbance allows forage seed to be placed at shallow depth (1/4 to 1/2 inch) into firm soil with adequate moisture for germination. Firm on-row packing prevents excessive drying of the soil. If substantial residue is present, hair pinning can strand the seed in soil that dries out, but most direct-seeding drills place the forage seed into adequate soil moisture with good packing. As always, a timely post-seeding rain to firm the seedbed can make any grower look good. The keys are shallow seed placement, with firm on-row packing, into soil firmed by a pre-seeding rainfall or sprinkler irrigation.

FOR MORE INFORMATION

- Contact Gary Kruger, Irrigation Agrologist, at 306-867-5524 or gary.kruger@gov.sk.ca;
- Contact Trevor Lennox, Forage Specialist, at 306-778-8294 or trevor.lennox@gov.sk.ca.



Weed-free stubble provides a firm seedbed for the shallow placement of forage seed.





Growing Forward 2 funding for Non-District Irrigation Development under FRWIP



by Garth Lipinski
Manager, Grants and Rebates Programs
Financial Programs Branch

Under the Agricultural Business Development component of the Farm and Ranch Water Infrastructure Program (FRWIP) established under Growing Forward 2, non-district irrigators can now access funding to expand irrigated acres (minimum 10 acres) outside of irrigation districts.

Eligible items include infrastructure (pumps, screens, pipelines, power installation and turnouts, etc.) to develop a secure water supply to the edge of the irrigated land parcel. Land parcel irrigation equipment (ex. irrigation pivots) is not eligible. Funding is the lesser of 50 per cent of eligible costs or \$1,000 per irrigable acre developed, to a maximum rebate of \$150,000.

Projects must be completed, including obtaining all necessary permits and approvals, the earlier of 18 months from written FRWIP project approval or February 15, 2018.

Given the number of approvals required to develop agricultural land for irrigation, the required steps are outlined below to assist applicants in meeting FRWIP project completion timelines.

STEP ONE: Contact Crops and Irrigation Branch at 306-867-5500 to discuss the viability of your project and complete a Request for Technical Assistance form to conduct a technical assessment of the project. The technical assessment includes an assessment of potential infrastructure, regulatory requirements that must be met and a site inspection. A sketch plan of the project will be developed outlining the project components and estimated cost.

STEP TWO: The *Irrigation Act, 1996* requires that all land must be certified before irrigation development occurs. As part of the Request for Technical Assistance*, Crops and Irrigation Branch will conduct a soil/water compatibility investigation to determine if the soil and water are suitable for irrigation. An Irrigation Certificate will be issued

by the branch for the land parcel if it is deemed suitable. Land certified for irrigation will have a detailed preliminary plan prepared showing the irrigation development.

*Funding for technical assistance related to irrigation certification can be obtained through the Farm Stewardship Program under the Irrigation Management Planning BMP.

STEP THREE: Apply to the Water Security Agency for a Water Rights Licence and Approval to Construct and Operate Works. The application will need to include a copy of the preliminary plan developed in Step Two.

STEP FOUR: Apply to FRWIP for funding approval for the project. Include copies of the Irrigation Certificate and Approval to Construct Works (if obtained) with your application.

STEP FIVE: Once the Water Security Agency has issued an Approval to Construct Works and project approval has been provided by FRWIP, construction can proceed. Interim claims can be submitted to FRWIP prior to the project being completed (minimum rebate \$25,000).

STEP SIX: Once the project is completed, a final survey and inspection must be conducted and an As-Constructed Plan completed. This plan is sent to the Water Security Agency to obtain the Water Rights Licence and Approval to Operate Works. Once obtained, submit copies of these approvals along with the final project claim to FRWIP.

FRWIP is funded 60 per cent by the federal government and 40 per cent by the provincial government under Growing Forward 2, a federal-provincial-territorial initiative.

FOR MORE INFORMATION:

- Contact FRWIP and the Farm Stewardship Program at 1-877-874-5365;
- The Crops and Irrigation Branch at 306-867-5500; or
- The Water Security Agency at 306-694-3900.



Producers who are not part of an irrigation district can now access FRWIP funding to expand their operations.





Researchers find less-costly way to produce bioethanol using genetically modified yeast

As the world's population continues to grow, the demand for fossil fuels is beginning to reach unsustainable levels. The need to invest in alternative sources for fuel is apparent. As demand for non-renewable energy throughout the world continues to grow, especially in economies such as India and China, it is important to think about sustainable fuel alternatives as oil becomes less available and more expensive.

The abundance of resources such as coal, natural gas, uranium and petroleum has transformed Saskatchewan into a "have" province; however, these resources are finite and cannot be relied upon as a long-term economic solution. With 40 per cent of Canada's agricultural land, the province has the potential to produce sustainable forms of energy-rich biofuel crops.

Saskatchewan is seizing the opportunity to be an international leader in biosciences by investing in innovative research. With Western Canada's abundance of wheat, it is much more economical to use that instead of commonly used raw materials such as sugar cane in the production of bioethanol. A 2009 study conducted at the University of Saskatchewan, with the help of the Agriculture Development Fund, explored using genetically modified common baker's yeast (*Saccharomyces cerevisiae*) to convert starch particles directly to bioethanol.

There are generally two major steps in the production of bioethanol from starch. The first step is referred to as hydrolysis. This process involves crushing raw materials such as wheat kernels and mixing them with water to form a mash-like substance. After the mash is formed, it is cooked at high temperatures to separate the starch particles from the mash and turning them into a gel. After this process is complete, the starch is cooled and further hydrolyzed by another starch called glucosylase. The second step is fermentation and involves mixing the glucose-filled mash with yeast, which results in the sugars being fermented into ethanol and carbon dioxide under anaerobic conditions.

While this is the most common process to maximize the yield of ethanol, it is not without its disadvantages. Large amounts of energy are required to gelatinize the starch granules in the hydrolysis step. This step eats up about 30 to 40 per cent of all energy spent during the ethanol production process. Also, a large amount of alpha-amylase is used in starch hydrolysis, which can account for up to 11 per cent of the total annual operating expenses of a cold starch hydrolysis plant. In addition, during the pre-cooking process, special equipment such as heat exchangers, steam jet cookers and holding tanks are required. These combined factors make the production process complicated and expensive, thereby limiting bioethanol's ability to be an inexpensive and reliable alternative to fossil fuels.

During the last 30 years, researchers have looked to reduce the costs associated with the production of bioethanol. As an example, the development of cold starch hydrolysis has greatly reduced the thermal energy used in the pre-cooking step mentioned above. Researchers have also taken advantage of the rapid development of DNA recombinant technology to develop genetically modified yeast strains with amylolytic activity that use starch for proliferation and fermentation, greatly reducing the operation, equipment and enzyme costs associated with bioethanol production.

For the purposes of this study, recombinant yeast was developed that secretes highly active barley alpha-amylase enzyme into a growth media, leading to starch hydrolysis in areas surrounding the yeast. This enables the yeast to both convert starch into sugars and use these sugars.

Researchers also used garden fertilizer and a blended yeast nutrient solution to develop a new liquid medium formulation that was 10 per cent of the cost of standard yeast media currently used to produce ethanol.

The new, recombinant yeast was compared to wild yeast in terms of the amount of biomass and ethanol it produced under fermentation. The researchers found that their new, inexpensive medium combined with the recombinant yeast produced a comparable quality and quantity of ethanol as the expensive medium with wild yeast.

The Agriculture Development Fund provides funding to institutions, companies and industry organizations to help them carry out research, development and value-added activities in the agriculture and agri-food sector. The results produce new knowledge, information and choices in technologies, techniques and varieties for farmers, ranchers, processors and input suppliers, to improve the competitiveness of Saskatchewan's agriculture sector.

In 2015, the Saskatchewan Ministry of Agriculture and Agriculture and Agri-Food Canada committed \$9.9 million in new funding for 61 ADF research projects through Growing Forward 2, a federal-provincial-territorial initiative.

FOR MORE INFORMATION

- Visit the Saskatchewan Agriculture research reports page at www.agriculture.gov.sk.ca/ADF/Search and enter the report number #20020044 into the search function.



Researchers have developed a genetically modified yeast that will reduce the cost and energy required to convert crops into biofuels.





Calves, cold and colostrum



by Jennifer Heyden, M.Sc., PAg
Regional Livestock Specialist, North Battleford
Regional Services Branch

The weather tends to be unpredictable during calving season, and most livestock producers can count on some cold, wet weather. Several management techniques can help ensure that calves stay warm and dry.

Wet and cold can be a deadly combination, especially for newborn calves. Cold stress can increase a calf's susceptibility to diseases like scours, pneumonia and navel infection. Portable windbreaks or permanent shelterbelts in your calving area provide protection. Adequate bedding encourages cows to lie down, and can also help reduce frozen ears, tails and feet on newborns. Checking the cows frequently during cold weather makes you aware sooner of any problems that may be brewing. If calves become hypothermic, they need to be warmed up. Once the calf is warm and stable, it should be returned to the cow and monitored. Calving difficulties during cold weather mean more stress on the cow and calf.

Newborn calves do not have fully developed immune systems. Colostrum, the first milk, is rich in proteins and antibodies required for immune function and disease resistance. Older cows tend to have greater colostrum antibody concentration due to greater disease exposure; however, good nutrition before calving increases the

quality and quantity of colostrum and subsequent milk production. Vitamin E is important because it improves colostrum quality, immune function and reproductive performance. A deficiency can result in retained placentas, reduced fertility and poor growth rates. Vitamin E is expensive but necessary, especially six weeks prior to calving and through to re-breeding.

One of the best ways to prevent chilling in calves is to make sure they have nursed shortly after birth. The calf must nurse and receive colostrum within the first 12 hours of its life; after 24 hours, the calf's digestive system is not able to absorb the large proteins and antibodies in the colostrum.

During cold, wet weather, pregnant or lactating cows will require more feed for fetal growth, milk production and maintenance as well as staying warm. Calves born to undernourished cows have fewer energy reserves than those born to well-fed cows in good condition. Newborn calves need to be dried off and allowed to nurse soon after birth in order to maintain an adequate core temperature and have sufficient energy.

FOR MORE INFORMATION

- Contact a Saskatchewan Agriculture Regional Office;
- Call the Agriculture Knowledge Centre at 1-866-457-2377; or
- Visit the Saskatchewan Agriculture website:
www.saskatchewan.ca/livestock

CHANGES TO FEDERAL DISEASE RESPONSE MAKE VACCINATION EVEN MORE IMPORTANT



by Betty Althouse, DVM
Chief Veterinary Officer
Livestock Branch

In 2012, the Canadian Food Inspection Agency (CFIA) announced that, effective April 1, 2013, its staff would no longer provide disease control or response activities for anthrax. In addition, CFIA staff would no longer conduct risk assessments, collect and submit samples or continue animal control activities such as quarantines for rabies cases effective April 1, 2014.

Both these diseases can be transmitted from animals to humans. Both diseases can also be prevented with vaccination.

There is a risk of anthrax throughout most of the province. Producers should discuss this risk with their veterinarians and vaccinate as needed. Herds on pastures where anthrax has occurred before should always be vaccinated. Since the CFIA no longer covers the cost of proper carcass disposal, vaccination has become even more cost-effective. Bison producers, in particular, can experience very high losses from anthrax, making vaccination even more critical in this species.

The provincial anthrax control program, introduced last year, will continue.



Anthrax is a risk to livestock throughout the province.

Rabies vaccination is prudent for any pets or animals having regular contact with people. This includes cats, dogs, horses and even 4-H animals. Rabies virus is transmitted through saliva, usually by bites. Wild animals such as skunks, or sometimes bats, can infect unvaccinated domestic animals. Rabid dogs and cats can infect people via bites or scratches or even licks on broken skin. Rabid horses, cows and sheep are less likely to transmit the rabies virus, but because a common clinical sign is choking or trouble swallowing, people can become exposed when they examine the animal's mouth.

The best rabies prevention is vaccination. No one should approach animals that are behaving strangely. Gloves should always be used when examining sick livestock. Most importantly, any animal bite should be reported to public health so that the risk of rabies can be determined. Quick post-exposure treatment can prevent rabies in people; once clinical signs develop there is no cure.

Watch for more information on a replacement provincial rabies program, but meanwhile contact your veterinarian to arrange for rabies vaccination of animals with which you are in close contact.

FOR MORE INFORMATION

- Go to www.saskatchewan.ca/livestock and look under Animal Health and Welfare for the anthrax response factsheet; or
- www.health.gov.sk.ca/rabies





Western Livestock Price Insurance Program now available

Saskatchewan livestock producers now have access to a new risk management program to help them withstand volatility in the market. On January 24, 2014, Saskatchewan Agriculture Minister Lyle Stewart, along with the federal government and other western provinces announced that Western Livestock Price Insurance is available to producers across Western Canada, including Saskatchewan.

The Government of Saskatchewan and Saskatchewan Crop Insurance Corporation (SCIC) have listened to cattle and hog producers who identified market price risk as one of the biggest challenges facing the livestock industry. Livestock price insurance is a risk management tool that allows producers to purchase price protection for cattle and hogs, in the form of an insurance policy. The program is a partnership between the federal government, Alberta, British Columbia, Manitoba and Saskatchewan. Saskatchewan producers now have an effective way to manage their price risk.

Producers are able to choose from four different price insurance options: calves, feeder cattle, fed cattle and hogs. Producers have the flexibility to evaluate each option and choose the product best suited to manage their risk.

Livestock price insurance provides producers with protection against an unexpected drop in prices over a defined period of time. Each of

the four price insurance options is designed to be market driven, offering coverage based on current market conditions. Producers pay a premium to receive forward price coverage; if the market price falls below the coverage price the producer receives a payment.

Producers are responsible for paying the full premium for the program. SCIC delivers the program and provides customer service for producers in the province; however, Alberta is the central administering agency of the program providing premium calculations, establishing forward prices, collecting market data to settle claims and providing technological support for the operating system.

More information will be available soon and the Saskatchewan Crop Insurance Corporation will provide support, helping the farmers and ranchers of the province learn about how livestock price insurance works and the process for accessing the new program. Producers can learn more by contacting their local Crop Insurance Office.

FOR MORE INFORMATION

- Visit www.sask.ca/producerservices/901271/

AGRICULTURAL OPERATOR PROGRAM LAUNCHED



by Cole Warren
Farm Management Intern
Regional Services Branch

When the Saskatchewan Plan for Growth was announced in October 2012, one of the key initiatives was the introduction of an agricultural operator training program aimed at addressing the shortage of skilled labour in the farming industry.

A pilot of the Agricultural Operator Program is being offered in time for the 2014 crop year. This module-based program offers practical hands-on training to individuals interested in or currently working on Saskatchewan farms. Students and employees will have the flexibility to take the entire program or choose the modules with training relevant to their operations. The knowledge base and skill sets provided by the program are intended to ensure that graduates will be both valuable employees and critical contributors to Saskatchewan's growing agricultural industry.

Agricultural Operator Program pilot training modules include:

- Seeding – March 3 to April 16, 2014
- Spraying and Scouting – May 26 to July 4, 2014
- Harvesting – July 7 to August 15, 2014

The inaugural module, seeding, is being offered through Parkland College in Yorkton and is comprised of 36 hours of hands-on workshops (in two three-day segments) and nine hours of online delivery. It will cover essential farm knowledge, seeding processes and equipment.

Classes for the seeding module run March 3 to April 16, with on-site training taking place March 3 to 5 and April 14 to 16, and the online portion in between those dates.

To register for the program, visit the Parkland College website at www.parklandcollege.sk.ca or phone 1-806-783-6566.

FOR MORE INFORMATION

- Contact Cole Warren, Farm Management Intern at 306-787-8191 or c.warren@parklandcollege.sk.ca



The seeding module offers 36 hours of hands-on workshops and nine hours of online instruction covering different aspects of seeding and seeding equipment.





Understanding the changes to the Farm and Ranch Water Infrastructure Program

by Garth Lipinski
Manager, Grants and Rebates Programs
Financial Program Branch

Under the federal-provincial-territorial Growing Forward 2 (GF2) initiative, the number and type of projects eligible for Farm and Ranch Water Infrastructure Program (FRWIP) funding has expanded. GF2 FRWIP now consists of four program components to offer agricultural producers and businesses more options for accessing assistance to develop water infrastructure for primary and value-added agricultural purposes.

On-Farm Component

ELIGIBLE APPLICANTS

Saskatchewan farmers, ranchers and First Nations Bands that earn a minimum of \$35,000 of gross farm income and own or operate a minimum of 320 acres of farmland – **NEW OPTION**

ELIGIBLE PROJECTS – non-potable water for agricultural use (household use **ONLY** is not eligible)

In addition to wells, pipelines, dugouts and connections to rural water utilities the list of eligible projects has expanded to include:

- Relocation of livestock watering facilities for environmental purposes – **NEW OPTION**
- Well head protection – **NEW OPTION**
- Well decommissioning – **NEW OPTION**

FUNDING AVAILABLE

Fifty per cent to a maximum of \$60,000

Well decommissioning – 90 per cent and payments do not count against program cap – **NEW OPTION**

Community Well Component

ELIGIBLE APPLICANTS

Saskatchewan rural municipalities (RM) and First Nations Bands

ELIGIBLE PROJECTS

Community wells and tank loading facilities for non-potable water increased loading facility storage capacity to reduce tank load times – **NEW OPTION**

Well head protection – **NEW OPTION**

Well decommissioning – **NEW OPTION**

FUNDING AVAILABLE

Two-thirds of eligible costs to a maximum of \$150,000

Well decommissioning: same parameters as On-Farm Component – **NEW OPTION**

Agricultural Business Development Component – NEW COMPONENT

ELIGIBLE APPLICANTS

Intensive farm operations, value-added agricultural businesses and non-district irrigators

ELIGIBLE PROJECTS – non-potable water for primary and value-added agricultural use

Same as On-Farm Component plus:

- Irrigation in-fill infrastructure to the edge of the irrigable land parcel
 - o Land parcel irrigation systems (ex. irrigation pivots are **NOT** eligible)

FUNDING AVAILABLE

Fifty per cent to a maximum of \$150,000

- Non-district irrigation in-fill: lesser of fifty per cent or \$1,000 per irrigable acre developed (minimum 10 acres)

Well decommissioning: same parameters as On-Farm Component

Irrigation District Infill Component

ELIGIBLE APPLICANTS

Irrigation districts in Saskatchewan with an irrigation in-fill development plan and irrigation replacement fund approved by the Ministry of Agriculture

ELIGIBLE PROJECTS

Engineering and construction costs related to installation of irrigation in-fill infrastructure to create secure water supply points to the edge of irrigable land parcels within an irrigation district

FUNDING AVAILABLE

Ninety per cent of eligible costs to a maximum of \$7 million

NEW OPTION

Timelines

- Proponents of approved projects (except irrigation district in-fill) have the earlier of 18 months from date of written project approval or February 15, 2018 to complete their projects and submit final claims.
- Proponents of irrigation district in-fill projects must have their projects completed and claims submitted by February 15, 2018.

FOR MORE INFORMATION or to obtain application forms:

- Visit the Saskatchewan Agriculture website at www.saskatchewan.ca/agriculture/foodandfarms

- Call toll free: 1-877-874-5365; or

- Email frwip@gov.sk.ca.





AgriStability: New producers – time to enrol for 2014

Saskatchewan producers wanting to become involved in AgriStability have until April 30, 2014, to enrol for the 2014 program year. Whether a producer has been out of the program for a couple of years and wants to participate again or is new to farming and looking to enrol, this is the ideal time to get the process started.

Applying to participate is as simple as calling the Saskatchewan Crop Insurance Corporation (SCIC) AgriStability Call Centre at 1-866-270-8450 and requesting a new participant package. This package includes a short two-page form which provides the initial information needed to enrol. Later in the year, SCIC will request additional information to develop the farm's margins to determine AgriStability benefits.

In order to be eligible for the program producers must generate income from the primary production of agricultural commodities in the year in which they want to participate. They must also have completed six consecutive months of farming activity, plus a production cycle and submit the required information by the appropriate deadlines.

SCIC considers those who have been farming for less than three years as new producers. These producers are still eligible to participate in

AgriStability as long as the previously mentioned criteria are met. If the farm has not been in operation long enough to have three previous years of production to generate the historical reference margin, SCIC will help the new producer by developing historical reference margins based on the farm's productive capacity.

AgriStability is designed to help farm operations facing large margin declines caused by production losses, increased costs or market conditions. To generate benefits, a producer's current year margin is compared to the historical performance of the farm. If the current margin falls below 70 per cent of the historical reference margin, a benefit is triggered. AgriStability payments provide 70 cents for every dollar in benefit triggered.

Remember, the deadline to request a new participant package is April 30, 2014.

FOR MORE INFORMATION

- Contact the AgriStability Call Centre at 1-866-270-8450;
- Visit your local Crop Insurance office; and/or
- Go to www.saskcropinsurance.com/agristability.

CROP INSURANCE IMPROVEMENTS FOR 2014

Every year, the Government of Saskatchewan and Saskatchewan Crop Insurance Corporation (SCIC) look at various ways to improve the programs being delivered to farmers and ranchers in the province. In doing so, SCIC seeks feedback from producers and uses these responses to enhance the services offered.

Recognizing changes in agronomics and technology, yield trending will be expanded to include durum and barley increasing coverage offered by SCIC. Also new in 2014 is the addition of commercial field peas to the Contract Price Option, expanding the selection available for producers. The base grade change applied to flax, improving it from #2 to #1 Canada Western grade, has increased the coverage obtainable for this crop. The vegetable insurance program has been expanded adding five new vegetables to their four crop baskets. Brussels sprouts, parsnip, garlic, radish and zucchini will all be available for coverage in this year's program.

SCIC has introduced a Grain Corn Insurance Pilot Program, recognizing the recent spike in corn acres grown for grain. Since there are risks attributed to high input costs associated with grain corn, SCIC has introduced a pilot program to help mitigate the

challenges producers face. In addition to the Grain Corn Pilot Program, SCIC offers Bee Mortality Insurance for Saskatchewan Beekeepers. The program is for beekeepers that over-winter their bees and will cover mortality losses in excess of normal as a result of naturally occurring causes beyond a producer's control.

CropConnect has changed to meet the growing technological demands of farmers in Saskatchewan. This enhanced online application allows producers to select their insurance, calculate premiums, complete seeded acreage reports and production declarations, and file their claims online from the convenience of a computer, tablet or mobile phone. CropConnect will provide quicker customer processing and is a convenient way for producers to conduct their Crop Insurance business allowing them to work from their computer or mobile phone.

The deadline to apply, reinstate, cancel or make changes to your 2014 Crop Insurance contract is March 31.

FOR MORE INFORMATION

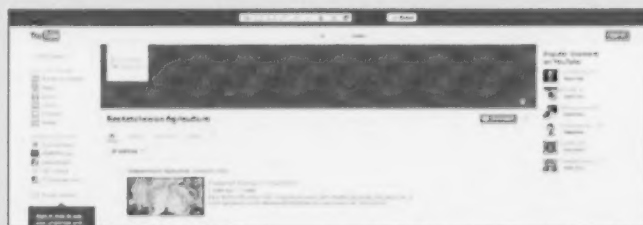
- Visit www.saskcropinsurance.com.

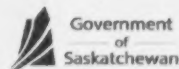
FOLLOW US ON TWITTER at



@SKAGRICULTURE

ALSO CHECK OUT OUR YOUTUBE CHANNEL at
WWW.YOUTUBE.COM/AGSASK



**LAND FOR SALE BY TENDER**

COMPLETED TENDERS AND 5% DEPOSIT MUST BE RECEIVED
AT A MINISTRY REGIONAL OFFICE BY 2:00 P.M. APRIL 3, 2014

Additional tender forms and eligibility criteria may be obtained from Ministry of Agriculture, Regional Offices, Rural Municipality offices or on line at www.agriculture.gov.sk.ca.

CONDITIONS OF TENDER

1. Tenders must clearly indicate the land that is being bid on and the amount being bid. Tender forms are available for this purpose. Tenders must be enclosed in a sealed envelope and mailed or delivered to any Ministry of Agriculture office. The envelope should be clearly marked "Land Tender".
2. Tender bidders are responsible for meeting any requirements of Part VI of The Saskatchewan Farm Security Act.
3. A certified cheque, money order or bank draft, payable to the Ministry of Agriculture for five per cent of the total tender, must accompany the tender. Tenders submitted without certified funds will not be considered.
4. In addition to the highest bid for any individual parcel, the Ministry of Agriculture will consider bids that provide the highest aggregate price for any combination of parcels.
5. The Ministry of Agriculture reserves the right to reject any bid. Where the highest bid is rejected, the bidder may be provided with an opportunity to meet the upset price.
6. An agreement for sale and transfer will be prepared in the name of the successful bidder. The spouse of the successful bidder can be added to the agreement for sale and transfer upon receipt of a written request.
7. The successful bidder has 30 days, from the effective date of the agreement for sale, to provide the balance in cash and to complete the purchase. The deposit will be forfeited if the successful bidder does not finalize the agreement for sale.
8. All fees to register the title with Information Services Corporation are the responsibility of the purchaser and are in addition to the bid price.
9. All lands, together with any fixtures and improvements are sold "as is". The bidder is solely responsible to determine the value and condition of land being sold, value and condition of improvements, land quality, land use, environmental condition and any other information pertaining to tendered land.
10. The Ministry of Agriculture may withhold or withdraw any land from sale at any time prior to the delivery of a signed agreement for sale.

2014 LAND FOR SALE BY TENDER

MAIL OR DELIVER TENDERS TO THE ADDRESS LISTED BELOW OR ANY MINISTRY OF AGRICULTURE REGIONAL OFFICE

CLOSING DATE: APRIL 3, 2014 AT 2:00 P.M.

TENDERS WILL BE OPENED AT THE REGIONAL OFFICE LISTED BELOW AT 3:00 P.M. ON APRIL 3, 2014

R.M.	LAND DESC	ACRES	CODES	EST MKT	NOTE
VALERIE TOWNSEND-FRASER					
#113-110 SOURIS AVENUE, WEYBURN, SK S4H 2Z8 (306) 848-2378					
63	NW-16-07-02-2	160	H,W,F,G,S	\$156,000	Oil well - valued at \$17,578, improvements valued at \$2,578 included
63	SE-16-07-02-2	160	H,F	\$118,800	Tame forage valued at \$815, included
93	SW-13-12-03-2	160	H	\$106,600	
93	N1/2 & SE 13-12-03-2	452	F,C,G,S	\$442,560	Grain storage valued at \$3,960 included
JESSICA WILLIAMS					
BOX 5000, 350 CHEADLE STREET W, SWIFT CURRENT, SK S9H 4G3 (306) 778-8292					
79	SW-29-08-19-3	157	C,G,F	\$72,400	
139	SW-36-14-19-3	136	G,F	\$56,200	
168	SW-23-16-17-3	160	G,F	\$172,570	
DAVID SHORTT					
#A131-1192-102ND STREET, NORTH BATTLEFORD, SK S9A 1E9 (306) 446-7463					
292	NW-7-28-28-3	160	C	\$134,202	Petroleum well valued at \$7,502 included
292	SW-29-30-28-3	159	C	\$92,900	
292	SE-29-30-28-3	156	C	\$197,500	
292	E1/2-31-30-28-3	118	C	\$84,991	Petroleum well valued at \$8,791 included
TRISH JOHNSON					
#A131-1192-102ND STREET, NORTH BATTLEFORD, SK S9A 1E9 (306) 446-7463					
464	[NW-12-46-08-3 SE-13-46-08-3]	274	A,C	\$161,000	SF13 south of road. Access limited to NW1/2

R.M.	LAND DESC	ACRES	CODES	EST MKT	NOTE
TIM FEIST					
BOX 1480, 1105-99TH STREET, TISDALE, SK S03 1T0 (306) 862-1789					
430	NE-12-44-24-2	80	C	\$25,700	
488	NE-30-52-19-2	150	H	\$58,800	
488	SE-31-52-19-2	160	H	\$61,300	
520	[NE-7-52-24-2 NW-7-52-24-2 SE-7-52-24-2 SW-7-52-24-2 SW-18-52-24-2 SE-12-52-25-2]	963	G	\$239,200	
DAVE JUNK					
BOX 1480, 1105-99TH STREET, TISDALE, SK S03 1T0 (306) 878-8820					
331	NW-26-34-31-1	160	G	\$16,700	
331	NW-32-36-32-1	60	G	\$20,900	
331	SW-32-36-32-1	61	G	\$20,900	
331	SW-23-34-31-1	160	G,A	\$29,900	Access Limitations
331	NW-1-35-31-1	159	G,F	\$55,300	
426	NW-18-41-12-2	79	G,A	\$175,000	Access Limitations
LYNNE ROSZELL					
BOX 1480, 1105-99TH STREET, TISDALE, SK S03 1T0 (306) 878-8897					
184	SW-4-20-05-2	160	F,G	\$124,500	
335	N1/2-29-37-07-2	320	F,G	\$122,300	
DEAN CORTUS					
BOX 1480, 1105-99TH STREET, TISDALE, SK S03 1T0 (306) 878-8880					
250	NE-25-25-22-2	152	H	\$72,200	

Tender form on next page

CODES: A - Access Limitation, B - Buildings, C - Cultivation, F - Fencing, G - Grazing, GS - Grain Storage, H - Hay, LF - Livestock Facilities, P - Power, S - CP/Survey Correction, T - Timber Included In Valuation, W - Water, Y - Yardsite.
[] Denotes - "to be sold as a unit"



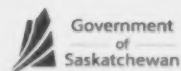


EVENTS CALENDAR

DATE	EVENT	LOCATION	PHONE	INTERNET
March 4 - 5, 2014	Cattle Marketing Workshop	Lloydminster, SK	1-866-457-2377	www.agriculture.gov.sk.ca/Calendar
March 6, 2014	WARC Crop Opportunity and Scott Research Update	North Battleford, SK	1-866-457-2377	www.agriculture.gov.sk.ca/Calendar
March 11 - 12, 2014	Soils and Crops Workshop	Saskatoon, SK	1-866-457-2377	www.agriculture.gov.sk.ca/Calendar
March 31, 2014	Deadline to apply, reinstate, cancel or make changes to your 2014 Crop Insurance contract	Saskatchewan	1-888-935-0000	www.saskcropinsurance.com
March 31, 2014	Deadline to submit your interim application	Saskatchewan	1-866-270-8450	www.saskcropinsurance.com



PROGRAMS AND SERVICES



LANDS BRANCH TENDER TO PURCHASE PROVINCIAL LAND

FULL NAME: <small>(full company name and/or Municipality)</small>	
ADDRESS:	
TOWN/CITY/POSTAL CODE:	
E-MAIL:	
PHONE NO:	FAX NO:
GST Registration number:	PLEASE COMPLETE ALL SECTIONS IN FULL

TENDER

I hereby submit a tender on the following land:

RM #	Quarter Section or Advertised Unit	Tender
		\$
		\$
		\$
		\$

Deposit

Enclosed is a certified cheque, money order or bank draft for \$_____ representing a deposit of five per cent (5%) of my total tender.

My G.S.T. Registration Number is _____ (Individuals who do not have a G.S.T. Registration Number will be required to pay G.S.T. on the purchase) I hereby submit the above tender to purchase provincial land, subject to the conditions listed in the tender ad, which I have read and understood.

(Date)

(Signature)

